



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,092	11/13/2003	Lawrence J. Karr	50037.0065USD4	9493
27488	7590	12/31/2007		
MERCHANT & GOULD (MICROSOFT)			EXAMINER	
P.O. BOX 2903			NGUYEN, DUC M	
MINNEAPOLIS, MN 55402-0903			ART UNIT	PAPER NUMBER
			2618	
			MAIL DATE	DELIVERY MODE
			12/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/714,092

Applicant(s)

KARR ET AL.

Examiner

Duc M. Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 30-33 and 44-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-33 and 44-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/29/07.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This action is in response to applicant's response filed on 9/26/07. Claims 30-33, 44-59 are now pending in the present application. **This action is made final.**

### Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims **50-59** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to claims 50, 56, the claims recite the limitation of "adjusting a variable tuning element..." which apparently claiming a variable tuning element for the antenna of a localcast transmitter. However, it is noted that the specification only disclose a variable tuning antenna for the mobile device for receiving scheduled messages broadcasted from a broadcast transmitter (see specification, page 5, line 26 – page 6, line 2). Therefore, the claim(s) contains new subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims **50-59** are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: the mobile station that comprises a variable tuning antenna.

As to claims 50, 56, the claims recite the limitation of "adjusting a variable tuning element..." which apparently claiming a variable tuning element for the antenna of a "localcast" transmitter. However, it is noted that the specification only disclose a variable tuning antenna for the mobile device for receiving scheduled messages broadcasted from a broadcast transmitter (see specification, page 5, line 26 – page 6, line 2). Therefore, the claims are considered as being incomplete for omitting essential steps, such omission amounting to a gap between the steps such as a mobile device for receiving the locally formatted data, wherein the mobile device comprises an adjustable tuning element for tuning the antenna in response to the locally formatted data, and wherein the locally formatted data is a scheduled message.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented

and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims **30-33, 44-45, 49-59** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kaiser** (US **6,060,996**) in view of **Cameron** (US 2002/0051499).

Regarding claim **30**, **Kaiser** discloses a method of re-broadcasting data transmitted over an FM subcarrier (see col. 2, lines 4—44, col. 4, lines 17-22), comprising:

- receiving at a localcast transmitter (see Fig. 8, ref. 130) said transmitted data (see col. 2, lines 23-40), wherein the mobile paging transceiver 130 would read on the "localcast transmitter";
- locally formatting said transmitted data for local-area wireless transmission (see col. 4, lines 17-54), wherein locally formatting the transmitted data includes encoding, the transmitted data at a data encoder when retransmitting using a first transmission speed and bypassing the data encoder when retransmitting using a second transmission speed (see Fig. 3 and col. 2, line 48-53, col. 5, lines 45-46), wherein it is clear that when the mobile paging transceiver 130 receives a message from satellite and retransmitting the message in a SWIFT or MSB protocol to a pager, two transmission speed would have been be utilized; and
- retransmitting said locally formatting data to a local-area (see Fig. 8 and col. 2, lines 23-40).

However, **Kaiser** fails to teach the step of bypassing an encoder when using a second transmission speed. However, **Cameron** discloses an encoder which comprises

a RS coder and a turbo coder (see Fig. 2 and [0091]), wherein **Cameron** further discloses that the system encoder bypasses the turbo encoder for a higher data rate (see Fig. 2 and [0071]). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further incorporate Cameron's teaching to Kaiser to utilize encoders with a bypass as claimed, for increasing the data transmission rate when transmitting data using SWIFT protocol (i.e, not performing Turbo coding when the signal quality is very good). Note also that the claimed "localcast transmitter with an encoder bypass" is just an "intended use" of **Cameron's** teaching in a localcast transmitter.

Regarding claims **31-32**, the claims are rejected for the same reason as set forth in claim 30 above. In addition, since the "local content" or "application information" are information data received at the "localcast device", and would be re-transmitted to mobile devices when needed (i.e, upon request by a mobile device). Therefore, it would have been obvious for the localcast transmitter to retransmit "local content" or "application information" as claimed, for supplying information data upon request by mobile devices.

Regarding claim **33**, the claim is rejected for the same reason as set forth in claim 30 above. In addition, since the mobile paging transceiver 130 is a "mobile device", this would read on the "first mobile device", the pager 110 would read on a "second mobile device" (see Fig. 1, noting that the mobile paging transceiver 130 is mounted on a "vehicle").

Regarding claim **44**, the claim is rejected for the same reason as set forth in claim 30 above. In addition, it is clear that **Kaiser** would disclose the low power link uses a locally-unused FM frequency for retransmitting data in the local area (see col. 5, lines 16-37).

Regarding claim **45**, the claim is rejected for the same reason as set forth in claim 44 above. In addition, it is clear that **Kaiser** would disclose a controller be utilized as disclosed by for setting a desired transmission frequency, setting a desired transmission mode (i.e, localcast mode or broadcast mode), and signal power (i.e, low power link) as claimed (see col. 5, lines 17-37).

Regarding claim **49**, **Kaiser** would disclose generating an FM frequency output from the transmitted data as claimed (see col. 5, lines 17-37).

7. Claims **46-48** are rejected under 35 U.S.C. 103(a) as being unpatentable by **Kaiser** in view of **Cameron** and further in view of **Chadwick** (US 5,168,271).

Regarding claims **46-48**, the claims are rejected for the same reason as set forth in claim 30 above. In addition, since such features as recited in the claims (i.e, adding correlation, interleaving and format baseband samples) are known features of an encoder/modulator as disclosed by **Chadwick** (see Fig. 2 and col. 4, line 36 – col. 6, line 22), it would have been obvious to one skilled in the art at the time the invention was made to provide the encoder/modulator in **Chadwick's** teaching to the transceiver in **Kaiser** as well, for improving data reception errors.

8. Claims **50-59** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kaiser** in view of **Cameron** and further in view of **Gaskill et al (US 5,301,358)**, hereafter Gaskill'358, and **Gaskill et al (US 4,713,808)**, hereafter Gaskill'808.

Regarding claim **50**, the claim is rejected for the same reason as set forth in claim 30 above. However, Kaiser fails to teach a variable tuning antenna for the mobile device. However, Gaskill'358 teaches a variable tuning antenna for a mobile device (see Abstract, Fig. 1), wherein the antenna is periodically retuned during a listener interval, prior to the receipt of a packet of information (see col. 3, lines 1-20). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate teaching of Gaskill'358 to Kaiser to provide a variable tuning antenna for the paging transceiver in Kaiser as well, for improving data reception quality. Since the broadcast data in Kaiser would obviously, if not **implicitly**, be scheduled for transmission as disclosed by Gaskill'808 (see col. 21, lines 12-17), Kaiser in view of Gaskill's references, would teach a paging transceiver that adjusts a variable tuning element configured to tune an antenna in response to a scheduled message reception as claimed, for improving data reception quality.

Regarding claims **51-52, 58**, the claims are rejected for the same reason as set forth in claim 50 above. In addition, since the "local content" or "application information" are information data received at the "localcast device", and would be re-transmitted to mobile devices when needed (i.e, upon request by a mobile device). Therefore, it would have been obvious for the localcast transmitter to retransmit "local content" or



“application information” as claimed, for supplying information data upon request by mobile devices.

Regarding claims **53, 57**, the claims are rejected for the same reason as set forth in claim 50 above. In addition, since the mobile paging transceiver 130 is a “mobile device”, this would read on the “first mobile device”, the pager 110 would read on a “second mobile device” (see Fig. 1, noting that the mobile paging transceiver 130 is mounted on a “vehicle”).

Regarding claims **54-55**, the claims are rejected for the same reason as set forth in claim 33 above, wherein it is clear that two “mobile devices” would communicate to each other when they both are in a localcast mode (i.e, low power communication link).

Regarding claim **56**, the claim is rejected for the same reason as set forth in claim 50 above, wherein the paging network would inherently comprise a broadcast transmitter (see **Kaiser**, Fig. 1 regarding ref. 108).

Regarding claim **59**, the claim is interpreted and rejected for the same reason as set forth in claim 50 above.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 30-33, 44-59 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Application/Control Number:  
10/714,092  
Art Unit: 2618

Page 9

Washington, D.C. 20231

**or faxed to:**

(571) 273-8300 (for **formal** communications intended for entry)

(571)-273-7893 (for informal or **draft** communications).

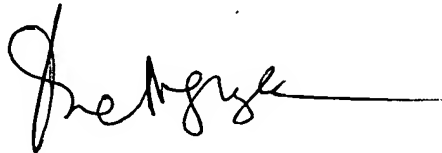
Hand-delivered responses should be brought to Customer Service Window,  
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry concerning this communication or communications from the examiner  
should be directed to Duc M. Nguyen whose telephone number is (571) 272-7893,  
Monday-Thursday (9:00 AM - 5:00 PM).

Or to Nay Muang (Supervisor) whose telephone number is (571) 272-7882.

Duc M. Nguyen, P.E.

Dec 18, 2007

A handwritten signature in black ink, appearing to read 'Duc M. Nguyen', with a long horizontal line extending to the right.